

Appendix Table 3-3 Scientists and engineers, by occupation and degree field: 2013

Occupation		Highest degree in S&E						S&E-related fields	Non-S&E fields
		All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	
All occupations	23,557,000	12,446,000	2,197,000	1,896,000	731,000	4,764,000	2,859,000	5,780,000	5,331,000
S&E occupations	5,749,000	4,341,000	1,190,000	586,000	358,000	587,000	1,620,000	319,000	1,089,000
Computer and mathematical scientists	2,647,000	1,796,000	1,120,000	64,000	45,000	153,000	414,000	132,000	719,000
Computer and information scientists	2,412,000	1,633,000	1,005,000	53,000	41,000	134,000	401,000	108,000	671,000
Computer and information scientists, research	42,000	36,000	19,000	4,000	2,000	5,000	5,000	S	4,000
Computer network architect	51,000	28,000	17,000	S	S	S	8,000	S	22,000
Computer support specialists	223,000	116,000	67,000	3,000	4,000	21,000	20,000	8,000	99,000
Computer system analysts	329,000	207,000	138,000	11,000	3,000	16,000	39,000	22,000	100,000
Database administrators	120,000	74,000	49,000	5,000	S	8,000	11,000	4,000	43,000
Information security analysts	67,000	51,000	33,000	S	S	7,000	9,000	S	14,000



		Highest degree in S&E							
Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Network and computer systems administrators	195,000	129,000	85,000	3,000	3,000	10,000	28,000	9,000	58,000
Software developers—applications and systems software	468,000	348,000	220,000	9,000	9,000	21,000	88,000	24,000	96,000
Web developers	153,000	72,000	43,000	6,000	1,000	8,000	14,000	8,000	73,000
Other computer information science occupations	259,000	146,000	88,000	5,000	3,000	28,000	22,000	11,000	103,000
Computer engineers—software	504,000	427,000	246,000	7,000	8,000	10,000	157,000	18,000	59,000
Mathematical scientists	127,000	82,000	44,000	10,000	3,000	17,000	8,000	7,000	38,000
Mathematicians	13,000	8,000	6,000	S	S	S	S	S	S
Operations research analysts, including modeling	64,000	36,000	16,000	S	2,000	10,000	5,000	3,000	25,000
Statisticians	39,000	30,000	18,000	4,000	1,000	6,000	1,000	3,000	6,000
Other mathematical scientists	11,000	8,000	4,000	S	S	S	1,000	S	3,000
Postsecondary teachers—computer and math sciences	109,000	81,000	72,000	1,000	1,000	S	5,000	18,000	10,000
Computer science	25,000	19,000	16,000	S	S	S	2,000	2,000	4,000
Mathematics and statistics	83,000	62,000	55,000	1,000	1,000	S	3,000	16,000	6,000



		Highest degree in S&E							
Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Biological, agricultural, and environmental life scientists	638,000	519,000	4,000	437,000	43,000	20,000	16,000	64,000	56,000
Agricultural and food scientists	69,000	58,000	S	49,000	6,000	1,000	1,000	2,000	10,000
Biological and medical scientists	448,000	357,000	4,000	297,000	32,000	13,000	13,000	55,000	36,000
Biochemists and biophysicists	75,000	67,000	S	50,000	13,000	S	3,000	4,000	4,000
Biological scientists (e.g., botanists, ecologists zoologists)	132,000	114,000	1,000	107,000	3,000	2,000	1,000	7,000	11,000
Medical scientists (excluding practitioners)	135,000	99,000	1,000	77,000	8,000	9,000	4,000	32,000	4,000
Other biological and life scientists	106,000	77,000	S	62,000	7,000	2,000	4,000	13,000	16,000
Forestry and conservation scientists	33,000	28,000	S	26,000	S	1,000	S	S	5,000
Postsecondary teachers—life and related sciences	88,000	76,000	S	65,000	5,000	5,000	1,000	6,000	5,000
Agriculture	7,000	6,000	S	4,000	S	2,000	S	S	S
Biological sciences	70,000	62,000	S	58,000	2,000	1,000	S	4,000	4,000
Other natural sciences	11,000	8,000	S	3,000	3,000	S	S	2,000	S
Physical and related scientists	319,000	294,000	4,000	46,000	215,000	7,000	23,000	10,000	15,000



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Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Chemists, except biochemists	105,000	95,000	S	14,000	72,000	1,000	6,000	4,000	6,000
Earth scientists, geologists, and oceanographers	70,000	66,000	S	3,000	56,000	3,000	4,000	S	3,000
Atmospheric and space scientists	14,000	13,000	S	S	11,000	S	1,000	S	S
Geologists, including earth scientists	52,000	49,000	S	2,000	42,000	2,000	3,000	S	2,000
Oceanographers	4,000	4,000	S	S	2,000	S	S	S	S
Physicists and astronomers	36,000	35,000	S	S	29,000	S	4,000	1,000	S
Astronomers	5,000	5,000	S	S	4,000	S	S	S	S
Physicists, except biophysicists	31,000	30,000	S	S	24,000	S	4,000	1,000	S
Other physical and related scientists	45,000	39,000	S	22,000	9,000	2,000	5,000	2,000	4,000
Postsecondary teachers—physical and related sciences	63,000	60,000	S	6,000	49,000	1,000	3,000	1,000	2,000
Chemistry	26,000	24,000	S	3,000	21,000	S	S	S	S
Earth, environmental, and marine science	15,000	14,000	S	3,000	10,000	1,000	S	S	S
Physics	22,000	22,000	S	S	19,000	S	S	S	S
Social and related scientists	581,000	408,000	7,000	11,000	6,000	380,000	3,000	34,000	139,000
Economists	37,000	27,000	S	1,000	S	24,000	S	S	9,000



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Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Political scientists	18,000	12,000	S	S	S	10,000	S	S	6,000
Psychologists, including clinical	208,000	179,000	S	1,000	S	178,000	S	4,000	24,000
Sociologists and anthropologists	21,000	19,000	S	S	S	18,000	S	S	1,000
Anthropologists	11,000	11,000	S	S	S	10,000	S	S	S
Sociologists	10,000	9,000	S	S	S	8,000	S	S	1,000
Other social and related scientists	125,000	55,000	2,000	6,000	5,000	40,000	2,000	20,000	50,000
Postsecondary teachers—social and related sciences	172,000	116,000	2,000	3,000	S	110,000	S	7,000	49,000
Economics	26,000	19,000	1,000	S	S	17,000	S	S	S
Political science	19,000	17,000	S	S	S	15,000	S	S	2,000
Psychology	43,000	39,000	S	1,000	S	39,000	S	S	3,000
Sociology	22,000	19,000	S	S	S	18,000	S	S	2,000
Other social sciences	62,000	22,000	S	S	S	20,000	S	6,000	35,000
Engineers	1,564,000	1,325,000	54,000	30,000	49,000	27,000	1,165,000	79,000	160,000
Aerospace, aeronautical, or astronautical engineers	98,000	82,000	3,000	S	5,000	S	72,000	4,000	12,000
Chemical engineers	66,000	61,000	S	1,000	3,000	S	57,000	1,000	3,000
Civil, architectural, or sanitary engineers	223,000	206,000	1,000	1,000	2,000	3,000	198,000	7,000	10,000
Electrical or computer hardware engineers	345,000	304,000	22,000	3,000	10,000	S	267,000	15,000	25,000



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Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Computer engineer—hardware	69,000	57,000	15,000	S	3,000	S	36,000	3,000	9,000
Electrical and electronics engineers	276,000	247,000	7,000	S	6,000	S	231,000	13,000	16,000
Industrial engineers	70,000	47,000	2,000	S	3,000	3,000	37,000	7,000	16,000
Mechanical engineers	302,000	257,000	3,000	1,000	2,000	1,000	249,000	14,000	31,000
Other engineers	419,000	332,000	21,000	21,000	22,000	15,000	253,000	27,000	61,000
Agricultural engineers	6,000	6,000	S	S	S	S	5,000	S	S
Bioengineers or biomedical engineers	28,000	24,000	S	2,000	2,000	S	19,000	1,000	4,000
Environmental engineers	68,000	63,000	S	13,000	7,000	3,000	40,000	2,000	3,000
Marine engineers and naval architects	10,000	9,000	S	S	S	S	8,000	S	S
Materials and metallurgical engineers	38,000	34,000	S	S	2,000	S	31,000	S	2,000
Mining and geological engineers	7,000	7,000	S	S	S	S	4,000	S	S
Nuclear engineers	23,000	20,000	S	S	S	S	18,000	S	3,000
Petroleum engineers	20,000	18,000	S	S	2,000	S	15,000	S	S
Sales engineers	88,000	54,000	8,000	S	2,000	6,000	36,000	8,000	26,000
Other engineers	131,000	97,000	11,000	3,000	5,000	3,000	75,000	13,000	20,000
Postsecondary teachers—engineering	42,000	35,000	1,000	S	2,000	S	32,000	4,000	2,000



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		Highest degree in S&E							
Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
S&E-related occupations	7,439,000	1,760,000	336,000	467,000	127,000	378,000	453,000	4,110,000	1,569,000
Health-related occupations	4,590,000	558,000	20,000	270,000	31,000	217,000	21,000	3,441,000	590,000
Diagnosing/treating practitioners (e.g., dentists, optometrists, physicians, psychiatrists, podiatrists, surgeons, veterinarians)	1,109,000	50,000	S	41,000	S	4,000	2,000	1,049,000	9,000
Registered nurses, pharmacists, dieticians, therapists, physician assistants, nurse practitioners	2,195,000	144,000	3,000	66,000	4,000	70,000	S	1,882,000	169,000
Health technologists and technicians (e.g., dental hygienists, health record technicians, licensed practical nurses, laboratory/radiology technicians)	521,000	182,000	3,000	100,000	14,000	60,000	5,000	197,000	141,000
Other health occupations	620,000	159,000	12,000	48,000	9,000	78,000	12,000	211,000	250,000
Postsecondary teachers—health and related sciences	145,000	23,000	S	15,000	1,000	6,000	1,000	101,000	22,000
S&E managers	902,000	450,000	98,000	43,000	30,000	62,000	216,000	227,000	225,000
Computer and information systems managers	212,000	126,000	81,000	S	S	19,000	21,000	7,000	79,000
Engineering managers	318,000	229,000	16,000	4,000	11,000	5,000	192,000	24,000	64,000



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Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Medical and health services managers	322,000	55,000	S	18,000	3,000	33,000	S	188,000	79,000
Natural sciences managers	50,000	40,000	S	18,000	14,000	5,000	2,000	7,000	3,000
S&E precollege teachers	968,000	219,000	71,000	57,000	28,000	51,000	13,000	193,000	556,000
Secondary—computer, math, or sciences	636,000	186,000	71,000	56,000	27,000	19,000	13,000	166,000	283,000
Secondary—social sciences	333,000	33,000	S	S	S	32,000	S	26,000	274,000
S&E technicians and technologists	778,000	501,000	130,000	94,000	37,000	42,000	198,000	90,000	187,000
Technologists and technicians in the biological/life sciences	93,000	74,000	S	62,000	5,000	2,000	3,000	11,000	8,000
Computer programmers (business, scientific, process control)	177,000	136,000	95,000	S	7,000	6,000	24,000	10,000	31,000
Electrical, electronic, industrial, and mechanical technicians	247,000	138,000	13,000	7,000	7,000	12,000	98,000	35,000	73,000
Drafting occupations, including computer drafting	26,000	11,000	S	S	S	S	8,000	6,000	8,000
Surveying and mapping technicians	18,000	10,000	S	S	S	S	S	7,000	S
Other engineering technologists and technicians	148,000	94,000	18,000	8,000	10,000	8,000	50,000	16,000	39,000



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Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Surveyors, cartographers, photogrammetrists	36,000	21,000	S	1,000	S	7,000	10,000	5,000	10,000
Technologists and technicians in the mathematical sciences	S	S	S	S	S	S	S	S	S
Technologists and technicians in the physical sciences	34,000	17,000	S	7,000	4,000	S	S	1,000	17,000
Other S&E-related occupations	201,000	31,000	17,000	S	S	5,000	4,000	159,000	11,000
Architects	172,000	15,000	4,000	S	S	2,000	4,000	147,000	9,000
Actuaries	29,000	16,000	13,000	S	S	S	S	12,000	S
Non-S&E occupations	10,368,000	6,345,000	671,000	842,000	246,000	3,799,000	787,000	1,351,000	2,673,000
Non-S&E managers	1,684,000	987,000	115,000	127,000	48,000	445,000	251,000	229,000	468,000
Top-level managers, executives, administrators (e.g., chief executive officer/chief operating officer/chief financial officer, president, district /general manager /provost)	1,005,000	590,000	71,000	72,000	37,000	258,000	150,000	147,000	268,000
Education administrators (e.g., registrar, dean, principal)	114,000	44,000	15,000	5,000	2,000	19,000	3,000	18,000	52,000
Other mid-level managers	566,000	353,000	28,000	50,000	10,000	168,000	98,000	65,000	148,000
Management-related occupations	1,794,000	1,173,000	176,000	131,000	38,000	659,000	169,000	217,000	405,000



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Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Accountants, auditors, and other financial specialists	627,000	413,000	76,000	31,000	11,000	268,000	26,000	60,000	154,000
Personnel, training, and labor relations specialists	231,000	155,000	13,000	13,000	2,000	116,000	11,000	20,000	55,000
Other management-related occupations	937,000	605,000	87,000	87,000	24,000	275,000	132,000	136,000	196,000
Non-S&E precollege teachers	821,000	353,000	34,000	39,000	13,000	255,000	12,000	145,000	324,000
Prekindergarten and kindergarten	88,000	56,000	7,000	12,000	S	36,000	S	9,000	23,000
Elementary	349,000	134,000	21,000	8,000	10,000	91,000	S	67,000	149,000
Secondary—other subjects	147,000	56,000	1,000	5,000	S	45,000	5,000	31,000	59,000
Special education—primary and secondary	167,000	72,000	1,000	6,000	S	62,000	S	32,000	63,000
Other precollegiate area	70,000	35,000	3,000	7,000	S	22,000	S	5,000	30,000
Non-S&E postsecondary teachers	188,000	68,000	8,000	5,000	3,000	44,000	9,000	20,000	100,000
Art, drama, and music	7,000	S	S	S	S	S	S	S	4,000
Business, commerce, and marketing	31,000	8,000	2,000	S	S	6,000	1,000	1,000	21,000
Education	38,000	9,000	1,000	1,000	S	6,000	S	5,000	24,000
English	24,000	8,000	S	S	S	8,000	S	S	15,000
Foreign language	10,000	6,000	S	S	S	4,000	S	S	4,000



		Highest degree in S&E							
Occupation	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
History	10,000	4,000	S	S	S	4,000	S	S	6,000
Physical education	7,000	S	S	S	S	S	S	S	4,000
Other postsecondary fields	61,000	27,000	3,000	2,000	1,000	15,000	S	11,000	23,000
Social services and related occupations	844,000	457,000	14,000	14,000	4,000	422,000	3,000	100,000	287,000
Clergy and other religious workers	99,000	37,000	S	3,000	S	28,000	S	4,000	58,000
Counselors (e.g., educational, vocational, mental health, and substance abuse)	388,000	228,000	S	8,000	S	214,000	S	60,000	99,000
Social workers	357,000	191,000	6,000	4,000	S	180,000	S	36,000	130,000
Sales and marketing occupations	1,419,000	1,075,000	116,000	152,000	47,000	656,000	103,000	160,000	185,000
Insurance, securities, real estate, and business services	377,000	284,000	22,000	31,000	6,000	202,000	24,000	40,000	53,000
Sales—commodities, except retail (industrial /medical/dental machinery, equipment, supplies)	243,000	186,000	17,000	44,000	16,000	80,000	28,000	24,000	33,000
Sales—retail (e.g., furnishings, clothing, motor vehicles, cosmetics)	340,000	260,000	40,000	33,000	13,000	154,000	20,000	54,000	27,000



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				Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences			
guards, wardens, park rangers)	208,000	171,000	13,000	15,000	S	118,000	23,000	22,000	16,000
Other service occupations, except health (e.g., probation officer, human services work)	385,000	277,000	26,000	38,000	9,000	174,000	29,000	60,000	48,000
Other teachers and instructors (e.g., private tutors, dance, flying, martial arts)	171,000	108,000	12,000	11,000	5,000	66,000	13,000	28,000	35,000
Construction and extraction occupations	104,000	65,000	S	14,000	S	27,000	18,000	29,000	9,000
Installation, maintenance, and repair occupations	99,000	78,000	11,000	19,000	S	21,000	24,000	20,000	S
Precision/production occupations (e.g., metal /wood workers, butchers, bakers, assemblers, tailors)	144,000	108,000	6,000	35,000	8,000	35,000	25,000	30,000	6,000
Transportation and material moving occupations	174,000	130,000	7,000	19,000	17,000	51,000	36,000	35,000	9,000
Other occupations	146,000	98,000	7,000	11,000	8,000	58,000	14,000	23,000	25,000

NOTES: S = suppressed for reasons of confidentiality and/or reliability. Scientists and engineers include those with one or more S&E or S&E-related degrees at the bachelor's level or higher or those who have only a non-S&E degree at the bachelor's level or higher and are employed in an S&E or S&E-related occupation. Detail may not add to total because of rounding. Numbers are rounded to the nearest 1,000.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Scientists and Engineers Statistical Data System (SESTAT) (2013), <http://sestat.nsf.gov/>.

